

Promises and Challenges of Utility Scale PV Grid Integration

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Large PhotoVoltaic systems offer the promise of lower costs of electricity and also simpler control by the Utility. The goal is to make these large scale systems true Utility assets, but there are a number of technical and regulatory hurdles to overcome. The presenters have direct experience with 1-10MW PV systems integrated into the medium voltage distribution network of Utility Grid, including the Lanai PV system. This experience includes work on large grids and also on relatively weak grids where the PV is both a major component and could be regarded as a destabilizing force due to the intermittent nature of the resource. The presentation will cover challenges in integrations, from communicating with SCADA systems, through fault ride-thru requirements in weak grids, and the stabilizing potential of Inverters with some moderate amount of storage.